INFANT SAFE SLEEP

REPORT OF THE 2004 SAFE SLEEP WORK GROUP

Submitted by:

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December 2004

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BACKGROUND

IMPACT ON INFANT MORTALITY

Michigan has had a higher infant mortality rate (IMR) than the rest of the United States for many years (Figure 1). In 2001, with a rate of 8.0 infant deaths per 1000 live births, Michigan ranked 38 of the 50 states in infant mortality. Infant deaths that happen during sleep occur largely during the postneonatal period or between one month and one year of age. Annually postneonatal deaths account for about 30% of all infant deaths and sleep-related deaths account for most of those deaths. Prevention of sleep-related deaths has a large potential to impact the overall infant mortality rate.

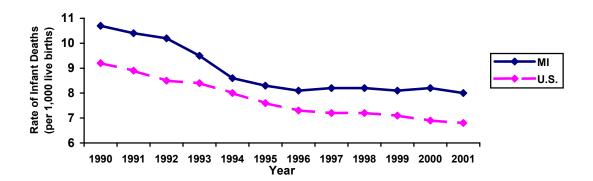


Figure 1. Infant Mortality Rate, Michigan Versus the U.S. (1990-2001)

Infant deaths are also much more frequent in African American families in Michigan. In 2002 state data, the African American IMR was 18.4, while the white rate was 6.0 a greater than threefold disparity. These rates of infant deaths have been statistically the same since 1994, suggesting a need for a change in prevention strategies.

Historically Sudden Infant Death Syndrome (SIDS) has been considered unpreventable. However, in Michigan, there has been over an 80% reduction in the number of SIDS deaths from 1990 to 2002. Indeed it is the only cause of infant mortality that has seen a significant decrease over the last decade both in Michigan and across the US. This reduction in infant mortality is credited, in part, to the Back-to-Sleep campaign and an increased recognition of unsafe sleep conditions.

On April 14, 1992 the American Academy of Pediatrics announced its recommendation that healthy infants should sleep on their backs rather than prone. The Back-to-Sleep campaign was initiated in 1994 nationally

with the collaboration of the National Institute of Child Health and Human Development, American Academy of Pediatrics, Association of SIDS and Infant Mortality Programs and SIDS Alliance. Michigan saw its first significant decline in SIDS deaths between 1992 and 1995, reflecting the positive impact of the message to change infant sleep position.

In Michigan, *Back to Sleep* materials were developed by Tomorrow's Child/Michigan SIDS as early as June 1994. In January 1995, the Michigan Department of Community Health convened a SIDS Task Force to develop a comprehensive *Back to Sleep* program. The Task Force Report recommended a coordinated system to manage and implement the campaign at a state and local level, a uniform standard for performing and reporting autopsies, and a complete, concise standard of practice for death scene investigations. The Michigan Department of Community Health and Michigan SIDS/Other Infant Death Program (Tomorrow's Child/Michigan SIDS) launched the Michigan Back to Sleep campaign at the Charles Wright Museum of African American History in October 1999. Materials included brochures, videos, public service announcements, bus signs, and billboards.

SHIFT IN CAUSE OF DEATH

Improvement in the number and quality of death scene investigations, in-home interviews with caregivers, and data collecting activities are providing better information about infant deaths. Many infant deaths that would have been called SIDS a decade ago are now labeled unsafe sleeping conditions. Although use of standard autopsy and death scene investigation protocols has increased, the criteria used to diagnose SIDS and sudden unexpected infant death is still inconsistent around the state.

DETERMINATION OF UNSAFE SLEEP PRACTICES

In September 1999, the Consumer Product Safety Commission released findings from a study in the Archives of Pediatrics and Adolescent Medicine. The study found that placing babies to sleep in adult beds put them at risk of suffocation or strangulation and that parents and caregivers are not aware of the hazards. The CPSC issued an advisory warning about the dangers of babies sleeping in an adult bed.

The researchers concluded that: 1) The suffocation hazards presented by beds, bedding, pillows, and plastic bags continue to be under recognized by parents and caregivers; 2) Bed-sharing and use of adult beds for infants should be discouraged; 3) Only safety compliant cribs should be used and maintained properly to ensure structural integrity; and 4) Suffocation deaths involving plastics should be investigated further to determine the specific material characteristics and use patterns. (Drago & Dannenberg, 1999; Nakamura, Wind & Danello, 1999)

In September 1999, the American Medical Association also issued a media advisory about the CPSC study, calling attention to the fact that unsafe sleep habits (adult beds, soft bedding) exposes infants to potentially fatal risks generally not recognized by the parent or caregiver. The AMA stated that parents and caregivers should be alerted to these avoidable habits.

In March 2000, the American Academy of Pediatrics, Task Force on Infant Sleep Position and Sudden Infant Death Syndrome, released a Policy Statement: Changing Concepts of Sudden Infant Death Syndrome; Implications for Infant Sleeping Environment and Sleep Position. The Statement modified and expanded on the earlier recommendations of the Task Force particularly as they related to sleep environment. The recommendations included:

Adult sleep surfaces do not meet safety standards for infants and have the additional risk of

entrapment

- Infants should not be put to sleep on soft surfaces
- Avoid soft materials in the infant's sleeping environment
- Bed sharing may be hazardous under certain conditions

On March 14, 2000, CPSC announced a safety campaign promoting safe bedding practices for babies. The safety campaign was aimed at retailers and manufacturers.

In a press release dated September 5, 2000, the American Academy of Pediatrics announced a new study by researchers from St. Louis University School of Medicine. The study concluded that bed sharing and placing babies to sleep on surfaces other than cribs increased the risk of infant death. On September 5, 2002, the CPSC, JPMA, and SIDS Alliance also announced their partnership in a new national *Infant Safe Sleep* campaign directed only at retailers.

A study of infant deaths in Chicago published in May 2003 *Pediatrics* confirmed that infants who share a bed with other children are at a higher risk of SIDS. The analysis confirms international studies reporting that sleeping on a sofa increases infants' risks of SIDS.

The most recent study, by NJ Scheers, *Pediatrius*, October 2003, reported that deaths of infants who suffocated on sofas, chairs or adult beds were increasing whereas suffocation deaths in cribs are declining. This study calculated that the risk of suffocation was 40 times higher for infants in adults beds compared with those in cribs. In a large comparison sample of living infants the researchers found that the number of infants placed to sleep in adult beds has increased 20 times from the 1980s to the 1990s.

In 2000, Child Death Review teams in Michigan reviewed 76 SIDS deaths. Though complete investigations of the death scene were done in a minority of the cases, some common risk factors were found. Only one infant was found sleeping on its back, alone and in a crib. Thirty percent of the infants were sharing a sleep surface with other children or adults. Six of the deaths occurred in a daycare setting. Second-hand smoke was a factor in 33% of the deaths and 26% had mothers who smoked during pregnancy (Michigan Child Death State Advisory Team. *Child Deaths in Michigan: Third Annual Report*, 2002.)

Both national researchers and state investigations show that the most frequent causes of suffocation are wedging between a bed or mattress and a wall and oronasal obstruction by plastic bag. Consistent findings suggest:

- Infants become wedged between the mattress and wall or headboard and asphyxiate.
- Infants fall from beds and couches, sometimes onto a pile of clothing or plastic, which then causes suffocation.
- The surface of waterbeds and couches are soft and can suffocate infants who are placed on or roll onto their stomachs or sides.
- Adults and/or other children sleeping on the same surface can overlay or otherwise block the airway of infants.

Sleep Surfaces not Designed for Infants

A sleep surface not designed for infants is defined as any sleeping surface that is not specifically designed and approved for infant sleep. These can include adult beds, waterbeds, couches, the floor, mattresses on the floor, car seats and infant swings. Of the infant sleep-related deaths reviewed by the Child Death Review Program between 2000 and 2002, 78% occurred on a sleeping surface not designed for infants. This broke

down to 23% of infant deaths reviewed occurring when the infant was sleeping alone, and 55% occurring when bed-sharing. Only 21% of infant sleep-related deaths reviewed in a bed-sharing situation between 2000 and 2002 cited drug or alcohol use as a factor contributing to the death. Of the infant sleep-related deaths reviewed between 2000 and 2002, nearly half (49%) cited blankets, quilts, comforters, pillow, stuffed toys, sheepskin or bumper pads as factors present in infant sleep-related deaths.

CALL TO ACTION - THE MICHIGAN INFANT SAFE SLEEP WORK GROUP

As the data and research confirmed the relationship between unsafe sleep practices and infant death, a sense of urgency emerged among health professionals to go beyond the *Back to Sleep* message and to include the infant's entire sleep environment. That urgency compelled *Tomorrow's Child/Michigan SIDS* to rethink written materials, risk reduction strategies, and target audiences. Infant Safe Sleep materials were developed in collaboration with Michigan Child Death Review, Fetal Infant Mortality Review, local health departments, health systems, and communities.

In the summer of 2004, the Michigan Department of Community Health and Michigan Family Independence Agency convened a broadly representative group to develop a statewide, consistent, comprehensive message and strategy to inform families and caregivers about unsafe sleep practices.

Members of the Infant Safe Sleep Work Group were:

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Alethia Carr, Director, WIC Division, Michigan Dept of Community Health

Lori Corteville, Analyst, Michigan Public Health Institute

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Paulette Dobynes Dunbar, Director, Women & Infant Family Health, Michigan Dept of Community Health Brenda Fink, Director, Division of Family & Community Health, Michigan Dept of Community Health Ted Forrest, Family Independence Agency

Rosemary Fournier, State FIMR Coordinator, Michigan Public Health Institute

Sandra Frank, Executive Director, Tomorrow's Child (Michigan SIDS)

Laurie Johnson, Analyst, Children's Protective Services, Family Independence Agency

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Peter Vasilenko, PhD, Researcher, Michigan State University

Jo Woods, FIMR Coordinator, Kalamazoo County Human Services Agency

The Work Group created two sub-groups: the Data Committee and the Message Committee. The committees met through the summer and presented their recommendations at the October 7, 2004 meeting of the Infant Safe Sleep Work Group.

The Data Committee presented information from Child Death Review and FIMR reports that indicated Michigan infant death data is similar to that of other areas that have been part of national research studies. The death reviews in Michigan are hampered by inconsistent death scene investigation and determination of cause of death.

RECOMMENDATIONS FROM THE DATA COMMITTEE

- 1. Adoption of State Death Review Protocols.
- 2. Provide information on best practice for death scene investigations to statewide organizations and agencies responsible for investigations. Explore the use of a nursing model that offers reenactment of the events leading up to the death, interviews with the families about risk factors, and education about avoiding future at-risk situations.
- 3. Further investigate the change in assignment of cause of death and its impact on vital statistics.
- 4. Create a listsery to help disseminate information about infant safe sleep and the implementation of these recommendations.
- 5. Utilize CDR and FIMR data to provide continuous evaluation of the impact of a statewide campaign to improve sleeping environments for infants.

The Message Committee reviewed the recommendations of the American Academy of Pediatrics, National Institute on Child Health and Human Development, Association of SIDS and Infant Mortality Programs, and American Medical Association and agreed on the core objective and message.

At the outset, the committee agreed that the AAP recommendations on infant sleep practices would provide guidance. The committee identified three key audiences: child care providers, professional audience and public audience. Each audience requires different and appropriate language and tools, but agreement was reached on the key message.

RECOMMENDATIONS FROM THE MESSAGE COMMITTEE

- 1. **EVERY BABY IS PLACED TO SLEEP IN A SAFE ENVIRONMENT!** This should be the core message of all educational presentations.
- 2. A safe sleep environment for infants means:
 - An infant should be placed to sleep on his/her back.
 - An infant should sleep in a safety approved crib with firm mattress and tightly fitted sheet
 - Waterbeds, sofas, soft mattress or other soft surfaces are not safe for infant sleep.
 - No soft materials in an infant sleep environment.
 - No loose bedding in an infant sleep environment.
 - Adult beds have an additional risk of entrapment and are not safe for infants.
 - Soft materials or objects should not be placed under a sleeping infant.
 - Soft objects and gas-trapping objects should be kept out of an infant's sleep environment.

- Bedsharing may be hazardous for infants. Adults and children should avoid bed sharing with infants.
- Use sleep clothing rather than blankets to keep infants warm.
- Keep babies face uncovered during sleep.
- Do not overheat the infant.
- Do not use sleep position devices.
- Baby's should sleep in a smoke-free environment.

RECOMMENDATIONS FOR CHILD CARE PROVIDERS

- 1. In addition specific information for child care providers:
 - Infants birth to 12 months sleep or rest in an approved crib or portable crib.
 - Infants shall not sleep with other infants, children, adults or pets.
 - Infant sleeps on his or her back even when he/she can roll over.
 - Firm mattress with tightly fitted bottom sheet, no additional padding between sheet and mattress.
 - Infant shall not sleep on an adult bed.
 - Infant's head uncovered at all times.
 - No soft objects, blankets, bumper pads in crib.
 - Infant shall not sleep on a couch, pillow or anything soft.
- 2. Amend child care licensing rules to incorporate infant safe sleep message.
- 3. Require infant safe sleep training of child care licensing and licensed child care providers.
- 4. Identify and implement strategies to educate unlicensed child care providers about infant safe sleep.

The committee engaged in thorough and respectful dialogue regarding the message for professional and public audiences. The committee was mindful of the compelling findings about the relationship of unsafe sleep and infant death. The committee discussed breastfeeding and unanimously agreed to recommend and support breastfeeding. Members were also sensitive to the fact that, regardless of recommendations, families may not follow infant sleep practice guidelines.

The committee recognized and was concerned that some parents will choose not to follow infant safe sleep practice guidelines. Still, after careful consideration, there was unanimous agreement among committee members that we have an obligation to educate professionals and families about the risks of unsafe sleep environments so that families can make an informed choice.

RECOMMENDATIONS FOR PROFESSIONALS

- 1. The Surgeon General should endorse the Safe Sleep message.
- 2. Develop a state level, coordinated, comprehensive system to manage and implement a campaign for professionals. The campaign should provide:

- Data to demonstrate the issue and convince providers to adopt safe sleep guidelines.
- Information to understand that these infant deaths are associated with unsafe sleep and are not necessarily "SIDS".
- Materials and message should be culturally appropriate.
- Materials should include brochures as well as posters, etc. for display in the office.
- Message about dangers of smoking, alcohol, drugs, and medication for infants.
- 3. The campaign should involve professional associations such as Michigan State Medical Society, Michigan Osteopathic Association, Michigan Nurses Association, Black Nurses Association, Wolverine Medical Association and Michigan Health and Hospital Association.
- 4. The campaign should include, but not be limited to, implementing Infant Safe Sleep as a standard of practice in Michigan hospitals.
- 5. Current Infant Safe Sleep initiatives should be evaluated, existing materials should be reviewed and inventoried, new materials developed as needed, public and private funding explored, and collaborative efforts continued.

RECOMMENDATIONS FOR PUBLIC AUDIENCES

- 1. An interagency administrative group should:
 - Coordinate and combine its communications and public relations to promote a statewide public awareness campaign.
 - Assess each department's existing materials to remove inaccurate visual and verbal content about infant sleep practices.
 - Identify programs and communications in each department in which we can insert the message.
 - Disseminate Infant Safe Sleep materials throughout the department and its clients.
 - Train staff that interacts with pregnant women, caregivers, and new families.
 - Make Infant Safe Sleep a standard practice within each department.
- 2. Encourage public/private partnerships for distribution of safe cribs for needy families.

In general, the committee felt the current Safe Sleep for Your Baby brochure addressed most of the infant sleep practice issues. However, additional areas of concern were identified. The committee reviewed the circumstances in which infants are dying and found that many deaths occur away from the infant's home. Interviews with professionals and parents whose infant has died also indicate that infants have been placed to sleep on their stomachs or in adult beds because the infant was sick, colicky or could not be soothed.

RECOMMENDATIONS FOR ADDITIONAL MATERIALS AND MESSAGES

The committee agreed on the need for additional, separate education materials/strategies on other infant care issues related to sleep.

- Travel/away from home
- Smoking

- Tummy time
- Breastfeeding
- Sick baby
- Colicky baby
- Soothing, comforting techniques
- 1. Fact sheets be obtained or developed to address infant sleep practices for travel and when the infant is away from home, tummy time, and smoking.
- 2. Families be encouraged to breastfeed their infant. Breastfeeding education should include the AAP recommendations on putting the approved infant crib near the bed to allow convenient breastfeeding and parent contact.
- 3. Fact sheets and other education materials be obtained or developed to educate professionals and caregivers on techniques to sooth/comfort a sick infant or an infant that will not sleep.
- 4. Infant safe sleep information be incorporated into all smoking cessation materials.

The Safe Sleep Work Group concluded with an agreement to continue the process of assuring adoption of the recommendations through the appointment of an Interagency Implementation Team. The goals of this team are: 1) obtain approval of administrations of the Department of Community Health and the Family Independence Agency to adopt the recommendations of this Work Group; 2) secure funding to support the recommendations; and 3) develop a strategic plan to implement the recommendations statewide.